

1 this application is seen to be different from that of either
2 Maedgen or Waldrum, alone or in combination. The Maedgen
3 system uses a rotating disk with multiple apertures (holes).
4 Each aperture meters eggs at a different rate depending upon
5 which aperture is selected. The aperture or opening on the
6 Stocker system is the same size as the rotor or other means
7 that meters the eggs. The Stocker system meters via a
8 positive displacement of eggs (each notched or grooved out
9 area is a measured amount of eggs being displaced from the
10 hopper to the collection bin). Maedgen's system uses
11 gravity or suction to pull the eggs through an opening (not
12 positive displacement). The claims now spell out the
13 difference in the metering means.

14 The Maedgen system has a typical venturi (air-actuated
15 spreader) where the eggs are released. The unit of this
16 invention uses a mixing chamber which may be constricted at
17 the opening end, the result of which is a decrease in the
18 air velocity in the chamber compared to the air velocity
19 outside the chamber (during flight). Also, the claims now
20 recite that the delivery tube into the chamber has a flared
21 end, which also decreases the entry speed of the insects
22 into the chamber. This decreased air velocity is a key
23 point in insect survival (lace wing insects are very
24 delicate and cannot tolerate high speed shear).

25 In the addition of the adhesive to the eggs (the slower
26 the eggs are traveling the better coverage of the eggs with
27 the adhesive. Also, in Maedgen's system the eggs are
28 released in the venturi section of his air-actuated spreader
29 where the air speed has been increased **not** decreased. This
30 can prove disastrous, but in any event is a different modus
31 operandi, not equal to that of Stocker.

32 Waldrum's system uses a conventional venturi type
33 feeding device. This system produces an aqueous slurry of
34 seeds (particulate) into the air, in lieu of dry seeds. The
35 Stocker system produces insect/insect eggs that are coated

1 with an adhesive, not insects/insect eggs in a slurry which
2 may or may not stick to a surface such as leaves which is
3 one of the objects of the Stocker invention. Waldrum's
4 system is used to deliver seeds in a aqueous slurry to the
5 ground as a cover crop or ground cover. The desire of
6 Waldrum is reach the ground, not to stick the distributed
7 material to plants as in the Stocker system, which sticks
8 insects/insect eggs to target plants for pest control.

9 Maedgen's system delivery tube is only a tube that
10 connects to the top of the mixing chamber. Stocker's
11 delivery tube which may be but need not be a J-tube,
12 connects both the collection chamber and mixing chamber **and**
13 **is positioned within the mixing chamber.** It also provides
14 the additional function of causing its own vacuum along with
15 releasing eggs into the chamber where they will not come in
16 contact with anything but the air and adhesive flowing
17 through the mixing chamber. See the claims as amended.
18 Remember that the air velocity of the moving insects of
19 Stocker has been slowed down in the mixing chamber due to
20 the flared end of the delivery tube; not speeded up as in
21 the venturi device of Maedgen after entry. This means that
22 Stocker's J-Tube is not the same as Maedgen's delivery tube.
23 The addition of any structure from Waldrum and/or any of the
24 other references cited does not overcome the deficiency of
25 Maedgen.

26 It is key that the nozzles which may be positioned
27 anywhere within the chamber, deliver the binder in the
28 chamber after the insects are passed into the chamber as to
29 interact with the eggs/insects in the chamber so the sticky
30 eggs/insects do not come in contact with the walls of the
31 mixing chamber which could cause damage thereto. Since the
32 eggs/insects are dosimetrically metered, good individual
33 coverage is achieved and large agglomerations are avoided.
34 Such large agglomerations could fall off the single leaf of
35 a tree or plant. With this in mind one can see that the use

1 of slurry as has been suggested by the combination with
2 Waldrum goes counter to the purpose of Stocker who wants to
3 **avoid hitting the ground.** The sticky eggs etcetera don't
4 fall to the ground which is off target. This need is
5 recited in one or more specific claims.

6 The invention of the Stocker system releases sticky
7 eggs or other sticky matter, that sticks to the target crop.
8 The underlying philosophies of the Maedgen (alone or in
9 combination with Waldrum) invention versus the Stocker
10 invention are very different and cannot be interchanged.

11 Several other references have been cited by the
12 Examiner to show specific limitations of Stocker's claims to
13 be obvious. Suffice it to say that the item found in
14 Sperber and others are not claimed unto themselves to be
15 new, but are new in the environment of Stocker. Thus when
16 placed in dependent claims, the dependent claims containing
17 these limitations are believed to be patentable if the main
18 claim from which they depend is patentable.

19 Turning further to specific comments of the Examiner
20 and their believed inaccuracy and/or inapplicability. Thus
21 in paragraph 8 the Examiner refers to the Waldrum reference
22 at column 9 line 49 through column 10 line 19 and states
23 that *"Waldrum teaches that to ensure the adhesion of the*
24 *particulate matter to plants, it is necessary to coat the*
25 *particulate matter ... prior to being dispensed into the*
26 *air..."* . A thorough reading of this section of the Waldrum
27 reference fails to teach anything like that. Rather his
28 discussion is limited to carrying the seed from air to the
29 GROUND in a controlled pattern. See column 9 line 35 to 37.
30 This is totally different from Stocker, and therefore the
31 attempt to combine Waldrum with Maedgen fails, because the
32 cited teaching is not present, and there is no reason to
33 want to have the particulates of Waldrum which are seeds,
34 stick to plants for any reason whatsoever. Thus there is no
35 basis for the combination of references. Therefore all of

1 the rejections based on Maedgen combined with Waldrum and
2 those rejections based on this combination with additional
3 references thrown in, should be withdrawn.

4 As to Spivak and the inclusion of optical sensors, such
5 instruments are deemed conventional when viewed in a vacuum-
6 no pun intended. But their presence in this very specific
7 environment is new, and since the main claims are believed
8 to be patentable, so should the dependent claim that
9 includes this extra limitation.

10 The discussion now turns to the optical sensors and their
11 purposes. As cited by the Examiner at page 7 last paragraph
12 in Spivak, the sensor determines clogs and causes a reverse
13 mechanical action to transpire and undo the clog. Such a
14 sensor would be work in applicant's device, wherein the
15 sensor issued to stop flow in its entirety. A sensor is not
16 a sensor for all purposes. The added element is not the
17 same and therefore the rejection of claim 22 and any
18 dependent claims thereon fails, when the addition of Spivak
19 is cited as the basis for the rejection.

20 The Examiner has cited the Endicott reference and has
21 combined it with Maedgen and Waldrum for reasons best known
22 to the Examiner, but which seem totally inappropriate to
23 this writer. The reference deals with the separation of
24 particulates of different sizes. The Examiner states that
25 concept of having a reverse venturi at the front of
26 applicant's apparatus would be old based on the fact that
27 Endicott shows a reverse venturi, and then he says it would
28 be obvious that a reverse venturi could be put on the
29 Maedgen article. The so-called reasonably prudent
30 individual would NEVER considering adding a reverse venturi
31 to the front or inlet 21 of Maedgen per page 8 lines 7-8 as
32 the astute Examiner seems to suggest. It is the contention
33 of this writer that a reverse venturi added to the inlet of
34 Maedgen would be to no effect as any effect it created would
35 be overcome and obviated by the regular venturi already

1 present from the point 21 to the location 22. The
2 assumption of applicability seems to lack merit.
3 Accordingly this rejection should be withdrawn.

4 The Examiner has chosen to overlook narrow claim 23 by
5 saying that the spur gear is but one of many metering
6 devices that would work. While that may be true, it is also
7 known that very narrow claims can often be had. It is
8 submitted that the use of a spur gear for this particular
9 metering purpose is novel and as such this narrow claims
10 should be issued.

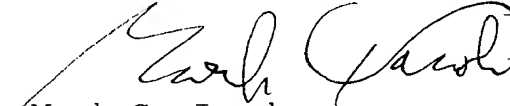
11 As to the back pack blower coupling means, and the
12 mounting of the apparatus on an airplane or other vehicle
13 these claims are very narrowly drawn. It is believed that
14 the underlying claims are patentable over the art and that
15 the addition of the minor extra hardware renders the 22-24
16 claims even more narrow. Since the undersigned contests the
17 position of the Examiner on the basic coupling of Maedgen
18 and Waldrum, the position asserted is equally if not more
19 applicable here. The rejections that include Kitterman
20 should be withdrawn.

21 The Examiner is urged to note claim 22 again,
22 especially in view of the amendment. None of the references
23 combined by the Examiner show the geometry as spelled out in
24 this claim. The injectors squirt in their adhesive
25 angularly just ahead of the release of insects or eggs.
26 Here and in the other claims, the eggs are for a small
27 finite time are moving in an airstream, then covered with
28 glue and then they continue to move in the airstream and out
29 into the atmosphere for ultimate delivery. This unique
30 geometry is not taught by the prior art. As such these
31 claims should be allowed.

32 The Examiner is advised that applicant and counsel were
33 familiar with the Maedgen reference prior to examination.
34 Special efforts have been taken to differentiate the claims
35 of this application from the claims and procedure thereof.

1 Still, if certain minor language claims are desired by the
2 Examiner, counsel would readily entertain such changes in a
3 telephonic communication in order to hasten the prosecution
4 of this case toward allowance. The technology disclosed
5 herein is being utilized in Northern California and needs to
6 be protected.

7 Respectfully submitted,

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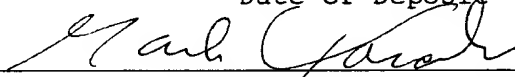
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